

Montana State University

**Montana State
University**

Mission

The mission of Montana State University (MSU) is education, broadly defined to encompass teaching, research and creative activities, and outreach.

Achieving Business Goals Through IT Initiatives

Business Goals	FY98-99 IT Projects
Streamlining information technology support of administrative offices; providing direct information access for faculty and students where appropriate.	Replace current Bozeman administrative information systems or migrate those systems to a Unix-based, client/server-based platform; seek a system that would provide a common platform for the MSU system.
Facilitate effective communication of faculty, staff, and students with each other, with	Implement a campus ATM network backbone and convert clients to ATM-based data

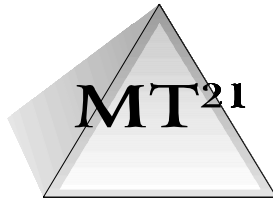
colleagues at other locations within the state, and with colleagues around the world. Support outreach and extension services and distance education efforts by providing the infrastructure needed for effective interactive communication.	network system on the basis of need for either speed of connection or need for greater functionality (e.g., voice+data+video connectivity at the desktop PC).
Support services critical to the academic mission of the University.	Replace the current library automation system with a modern system.
Use information technology to increase the effectiveness and efficiency of clients.	Provide an integrated suite of services for clients' desktop computer systems: file/print service, standardized email system, calendar scheduling system, etc.
Plan for and provide an information technology environment that supports the academic mission of the University.	Work with faculty and students to develop a community understanding of the level of student access to and use of technology tools and then support the implementation of the resulting plans.

FY98-99 IT Project Profiles

See the table beginning on page 137 for project profiles detailing platform type, implementation schedule, emerging technologies used, new project resources and associated costs, statutory changes, and public access. Those agencies and universities that provided these details are listed alphabetically, with each followed by its project profiles.

Accomplishments

- ▲ Campus network cable installation on the MSU-Bozeman campus: fiber-optic backbone, CAT-5 in 10 buildings to date.
- ▲ Through the Information Services Task Force, developed a comprehensive vision of the services needed for the MSU-Bozeman campus and a structure for implementing and managing those services. That plan is now being implemented.
- ▲ At MSU-Northern, developed, in conjunction with local private-sector telephone providers, an interactive television network to serve the Highline region. The system that has been implemented is based upon modern technologies and can be extended to provide voice, video, and data service concurrently.



The University of Montana ***The University of Montana***

Mission

The University of Montana seeks to assist the people of Montana to achieve their fullest social, cultural, intellectual, creative, vocational, professional, economic, and personal potential. It accomplishes this purpose in three primary ways. Through research and creative work, the University seeks to provide new techniques and solutions, expand the frontiers of knowledge and awareness, and prepare the people of Montana for challenges as yet unimagined. By transmitting knowledge through instructional programs and libraries, the University strives to prepare and inform future generations of professionals, leaders, and citizens in a wide range of fields, thereby providing unique opportunities for intellectual growth, social mobility, professional development, and a decent society. Through the sharing of its academic resources and faculty expertise, and by keeping the public abreast of new and critical developments, the University makes valuable contributions to the quality of life, societal well being, and the economic conditions in Montana, the nation, and the world.

The University endeavors to sustain and enhance a well-deserved reputation as one of the nation's finest liberal arts institutions with a research and graduate education mission by offering a wide array of distinctive programs which focus upon the human, natural, and social environment, culture, and conditions of Western Montana, the Rocky Mountains, Montana, the

United States, and the world. Each of the four campuses of the University located respectively in Missoula, Butte, Dillon, and Helena have distinctive missions and associated ranges of academic and service programs to assist in the fulfillment of the University's mission. Through educational centers in numerous locations around the State and by way of distance learning technology, the University works to expand its presence through the State and eventually to make its programs accessible from anywhere in the world.

Taking its direction from the Constitution and laws of Montana and the mandates of a public institution, the University strives to serve the needs of all Montanans who meet its admission criteria. The four campuses all make unique contributions to this effort, and the resultant diverse student and client populations represent the diverse groups constituting the people of Montana. The University acts on the premise that diversity contributes to the strength of its academic and service programs.

Achieving Business Goals Through IT Initiatives

Business Goals	FY98-99 IT Projects
	<p>Student Access. Implement seven new multimedia classrooms in FY98 (four in Missoula, two in Butte, and one in Dillon) and 12 more classrooms in FY99 (six in Missoula, two in Butte, three in Dillon, and one in Helena). Improve remote dial-up access to campus networks and Internet resources on all campuses. Increase the number of student workstations in campus labs, replace obsolete workstations with technologically current workstations, and keep workstation software current. Promote student ownership of desktop or laptop workstations through attractive pricing and financing packages. Provide on-line student access to student information systems (primarily via the web), thus permitting students to obtain services at any time, from anywhere. Additional support staff will be needed to implement and continue each of these student access initiatives.</p> <p>Information Technology Resource Center. Support faculty in their efforts to identify new technology to support their classroom, research, and public service activities. Develop campus locations with appropriate "cutting edge" technology and support staff, where faculty can be trained in the use of new technologies. Provide "release time" or other appropriate mechanisms for faculty to experiment with new technologies and incorporate these technologies into the curriculum.</p>

The University of Montana

Business Goals	FY98-99 IT Projects
	<p>The University of Montana Educational Network. Develop an educational network designed to deliver cost-effective and interactive instructional programming to learners who are place-bound or otherwise under-served in Western Montana, using current and evolving technologies such as the Internet, compressed video, KUFM-TV, and cable. Four major initiatives will be undertaken to implement the Network: 1) increase the ability of the University to transition existing and develop new mixed-media-content courses; 2) increase the ability</p>

	<p>of the University to provide traditional and electronic Library resources in support of distance learning; 3) increase the ability of the University to originate and support multiple simultaneous offerings; and 4) obtain funding to stimulate the placement, support, and operation of an appropriate telecommunications infrastructure through corporate partnership.</p> <p>Support Systems. Implement the BANNER suite of software products across all campuses to significantly improve student, financial, and human resource information systems. This common software environment will provide students with complete and easy access to support services and information as they progress through their academic careers and will provide management the information needed to deliver improved educational services in an efficient and cost-effective manner. The common environment will permit mutual inter-campus technical support for implementation and operation of these large, complex, database environments.</p> <p>Convert other non-BANNER software to the state-standard Oracle database, with priority given to those systems sharing data with BANNER and those systems with required Year 2000 changes. Acquire new central computers on all four campuses to run the improved support systems and add systems, programming, and operations staff to implement the new systems and provide on-going support.</p>
Business Goals	FY98-99 IT Projects
	<p>Network Infrastructure. Implement external fiber-optic and internal level-5 networks for the Butte, Dillon, Helena, and Missoula College of Technology campuses. This will provide immediate, high-speed access to computer-based information resources, and will become the basis for communication through voice and video in the future. Improve inter-campus connectivity; improve connectivity to K-12 schools and the Internet; and participate in national very high-speed research network initiatives. Upgrade campus network routing and computing environments to support significant increases in network traffic and add additional technical staff to support the growing</p>

FY98-99 IT Project Profiles

See the table beginning on page 137 for project profiles detailing platform type, implementation schedule, emerging technologies used, new project resources and associated costs, statutory changes, and public access. Those agencies and universities that provided these details are listed alphabetically, with each followed by its project profiles.

FY00-01 Initiatives

- ▲ Educational Network. Expand the number of courses offered and sites served by The University of Montana Educational Network. Integrate course offerings and delivery mechanisms with other units of the Montana University System and offerings from out-of-state.
- ▲ Support Systems. Complete implementation of the BANNER software suite and conversion of non-BANNER applications to Oracle. Increase computing hardware and support resources as necessary to support additional users.
- ▲ Disaster Recovery/Backup/Security. Develop and implement a plan for disaster recovery and backup across the four campuses of the University of Montana. This effort becomes much more feasible with the implementation of the common database and support software suite. Improve security for all systems to prevent unauthorized access.

***The University of
Montana***

Accomplishments

- ▲ Instructional, Research, and Public Service Initiatives. The Missoula Campus has a new support organization, the Information Technology Resource Center, providing expertise to teachers, faculty, and others on integrating technology into K-12 and Higher Education curricula, programs, and facilities. KUFM-TV, new sister station to KUSM in Bozeman, provides the first Montana Public Television in Western Montana and new public television programming statewide. Three graduate programs are offered via technology to various sites in Montana.

The Butte Campus has directed resources toward the training of faculty in the development of multi-media and distance course delivery, and students are now offered coursework via the Internet. Students on the Dillon Campus all have network accounts and can access campus information from a web server. Students at the Helena College of Technology all have access to e-mail, and the Internet is part of the curriculum.

- ▲ Support Systems. Touch-tone (telephone) registration was implemented for Missoula Campus students for the fall of 1995. The College of Technology was integrated into Student, Financial, and Human Resources information systems. Disbursement of student financial aid via electronic funds transfer (EFT) is now available, greatly reducing the time and effort needed to get student their aid monies. The BANNER Human Resources module was on-line July 1, 1996, paying Missoula Campus employees both bi-weekly and monthly. The BANNER Degree Audit and Transfer Articulation modules are installed, permitting students to better plan their coursework with faculty guidance.

The Butte Campus has installed a new DEC Alpha computer and begun implementation of Oracle and BANNER. The Student Information System has been expanded to include the College of Technology. From their offices, all faculty now access the Student Information System and both advise and register students for classes.

All administrative systems on the Dillon Campus have been migrated to a DEC Alpha computer. Oracle and BANNER Student and Financial Aid systems have been implemented. The Dillon Campus is the pilot University of Montana campus implementing BANNER Web for Student, which permits students to access their student records directly from a PC on campus or at home.

The Helena College of Technology is using the BANNER Student system, operating on the Clark computer on the Missoula Campus.

- ▲ Campus Infrastructure. The Missoula Campus network backbone is largely complete. The three routers on the campus backbone have been replaced and a fourth added, improving network performance and permitting an upgrade to ATM and other new network protocols. The Student and Human Resource Systems were migrated to a new DEC Alpha computer. The number of general-access student computer workstations has doubled, to just under 300. About 100 new or replacement faculty computer workstations have been installed. Remote student and employee dial-up access to the campus network and the Internet has been privatized, providing much improved service levels. The data connection to the College of Technology campus has been upgraded to a dedicated T-1 line.

A fiber-optic network backbone had been completed to each building on the Butte Campus and internal level-5 wiring completed in two buildings. The data connection to the College of Technology campus has been upgraded to a dedicated 56-kbps line. More than one-third of the PCs on campus have been upgraded to Pentium processor machines,

and all campus PCs have Internet access and the Microsoft suite of applications. All PC servers have been converted to Windows NT.

Two Dillon Campus buildings have been upgraded to level-5 internal wiring, and plans have been completed for rewiring all campus buildings and for migrating the campus backbone from coaxial cable to fiber. PC servers have been converted from Pathworks to Windows NT, and hardware and software in two student PC labs have been upgraded to run Windows NT Workstation.

Internal wiring is complete in the Donaldson building of the Helena Campus, with three departments now using e-mail. Student classroom and lab workstations have been upgraded to about 50% Pentium and 50% 486 processors. All administrative offices are supported by a Windows NT Server.

***The University of
Montana***